

## CLAIMS

What is claimed is:

1 1. A floor cleaning unit comprising:

2                   at least one PVC/NBR component selected from the group consisting of  
3                   seals, mounts, tubing, and contact members, said PVC/NBR component including  
4                   a polyvinyl chloride base resin and, based upon 100 parts by weight of said  
5                   polyvinyl chloride base resin:

6                   (a) from about 10 to about 50 parts nitrile rubber, as an impact  
7                   modifier;  
8                   (b) from about 30 to about 100 parts plasticizer; and  
9                   (c) from about 1 to about 4 parts polyvinyl chloride stabilizer.

1 2. A floor cleaning unit comprising:

2                   a contact member including a polyvinyl chloride base resin; and  
3                   based upon 100 parts by weight of said polyvinyl chloride base resin:

4                   (a) from about 20 to about 40 phr nitrile rubber,  
5                   (b) from about 60 to about 100 phr plasticizer,  
6                   (c) from about 1 to about 5 phr polyvinyl chloride stabilizer,  
7                   (d) from about 10 to about 15 phr epoxide plasticizer,  
8                   (e) from about 0.05 to about 0.4 phr internal lubricant, and  
9                   (f) from about 0.7 to about 1.5 phr external lubricant.

1 3. A floor cleaning unit of claim 2, wherein, based upon 100 parts by weight of said  
2                   polyvinyl chloride base resin, said contact member includes:

3                   (a) from about 25 to about 35 phr nitrile rubber,  
4                   (b) from about 70 to about 90 phr plasticizer,  
5                   (c) from about 2 to about 4 phr polyvinyl chloride stabilizer,  
6                   (d) from about 12 to about 14 phr epoxide plasticizer,  
7                   (e) from about 0.1 to about 0.3 phr internal lubricant, and  
8                   (f) from about 0.8 to about 1.2 phr external lubricant.

1    4.    The floor cleaning of claim 3, wherein, based upon 100 parts by weight of said  
2       polyvinyl chloride base resin, said contact member includes:

3               (a)    30 phr nitrile rubber,  
4               (b)    about 80 phr plasticizer,  
5               (c)    about 3 phr polyvinyl chloride stabilizer,  
6               (d)    about 13 phr epoxide plasticizer,  
7               (e)    about 0.2 phr internal lubricant, and  
8               (f)    about 1,05 phr external lubricant.

1    5.    A floor cleaning unit comprising:

2               a sealing member including a polyvinyl chloride base resin; and  
3       based upon 100 parts by weight of said polyvinyl chloride base resin:

4               (a)    from about 20 to about 40 phr of nitrile rubber,  
5               (b)    from about 60 to about 100 phr of plasticizer,  
6               (c)    from about 1 to about 5 phr of polyvinyl chloride stabilizer, and  
7               (d)    from about 10 to about 15 phr of epoxide plasticizer.

1    6.    The floor cleaning unit of claim 5, wherein, based upon 100 parts by weight of said  
2       polyvinyl chloride base resin, said sealing member includes:

3               (a)    from about 25 to about 35 phr of nitrile rubber,  
4               (b)    from about 70 to about 90 phr of plasticizer,  
5               (c)    from about 2 to about 4 phr of polyvinyl chloride stabilizer, and  
6               (d)    from about 12 to about 14 phr of epoxide plasticizer.

1    7.    The floor cleaning unit of claim 6, wherein, based upon 100 parts by weight of said  
2       polyvinyl chloride base resin, said sealing member includes:

3               (a)    about 30 phr of nitrile rubber,  
4               (b)    about 80 phr of plasticizer,  
5               (c)    about 3 phr of polyvinyl chloride stabilizer, and  
6               (d)    about 13 phr of epoxide plasticizer.

1       8. A floor cleaning unit comprising:

2                   a foamed sealing member including a polyvinyl chloride base resin, and,  
3                   based upon 100 parts by weight of said polyvinyl chloride base resin:

4                   (a) from about 20 to about 40 phr of nitrile rubber,  
5                   (b) from about 75 to about 125 phr of plasticizer,  
6                   (c) from about 1 to about 5 phr of polyvinyl chloride stabilizer,  
7                   (d) from about 10 to about 15 phr of epoxide plasticizer,  
8                   (e) from about 0.5 to about 1.5 phr of blowing agent.

1       9. The floor cleaning unit of claim 8, wherein, based upon 100 parts by weight of said  
2                   polyvinyl chloride base resin, said foamed sealing member includes:

3                   (a) from about 25 to about 35 phr of nitrile rubber,  
4                   (b) from about 85 to about 95 phr of plasticizer,  
5                   (c) from about 2 to about 4 phr of polyvinyl chloride stabilizer,  
6                   (d) from about 12 to about 14 phr of epoxide plasticizer,  
7                   (e) from about 0.75 to about 1.25 phr of blowing agent.

1       10. The floor cleaning unit of claim 8, wherein, based upon 100 parts by weight of said  
2                   polyvinyl chloride base resin, said foamed sealing member includes:

3                   (a) about 30 phr of nitrile rubber,  
4                   (b) about 100 phr of plasticizer,  
5                   (c) about 3 phr of polyvinyl chloride stabilizer,  
6                   (d) about 13 phr of epoxide plasticizer,  
7                   (e) about 1 phr of blowing agent.

1       11. A floor cleaning unit comprising:

2                   tubing including a polyvinyl chloride base resin; and

3                   based upon 100 parts by weight of said polyvinyl chloride base resin:

4                   (a) from about 20 to about 40 phr of NBR;  
5                   (b) from about 50 to about 80 phr of plasticizer;  
6                   (c) from about 1 to about 5 phr of PVC stabilizer;  
7                   (d) from about 3 to about 8 phr of epoxide plasticizer;

8 (e) from about 5 to about 15 phr filler;  
9 (f) from about 0.05 to about 0.4 phr internal lubricant; and  
10 (g) from about 0.5 to about 1.2 phr external lubricant.

1 12. A process for producing a soft durometer polyvinyl chloride compound comprising  
2 the sequential steps of:

3 adding PVC resin to a mixer and heating, under agitation, to a temperature  
4 of from about 140°F to about 170°F;

5 adding plasticizer and stabilizer to the PVC resin and raising the  
6 temperature to from about 185°F to about 195°F;

7 adding at least one ingredient selected from fillers, blowing agents,  
8 pigments, internal lubricants and external lubricants and raising the temperature  
9 to from about 220°F to about 240°F

transferring the resultant mixture to a cooling mixer and lowering the temperature to the range of from about 120°F to about 70°F;

12 adding nitrile rubber to the cooled mixture; and

13 feeding the resultant nitrile rubber mixture to an extruder to shear and fuse  
14 the mixture at a temperature of from about 280°F to about 350°F.

1 13. The process of claim 12, further comprising the step of:

2 pelletizing the nitrile rubber mixture at the extruder.

1 14. The process of claim 13, further comprising the step of:

2 forming the pellets into an element of a floor cleaning unit, the element  
3 being selected from the group consisting of sealing members, mounts, tubing and  
4 contact members.